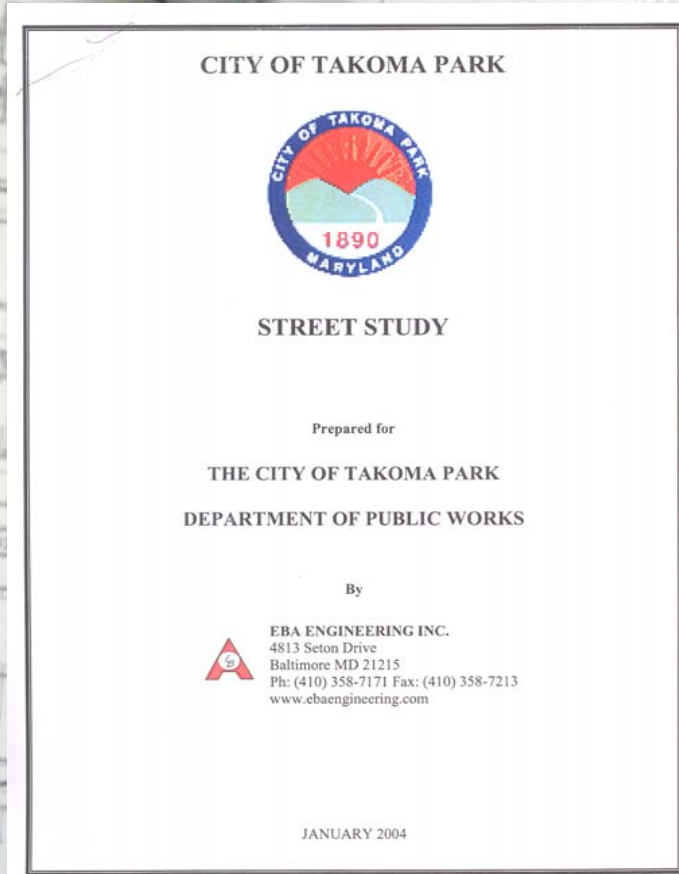




City of Takoma Park

Street Renovation Program Overview

STREET STUDY



- City Council authorized street study in 2003
- Objectives:
 1. Evaluate all city streets condition
 2. Rate streets based on pavement conditions
 3. Provide repair recommendation
 4. Provide cost estimate

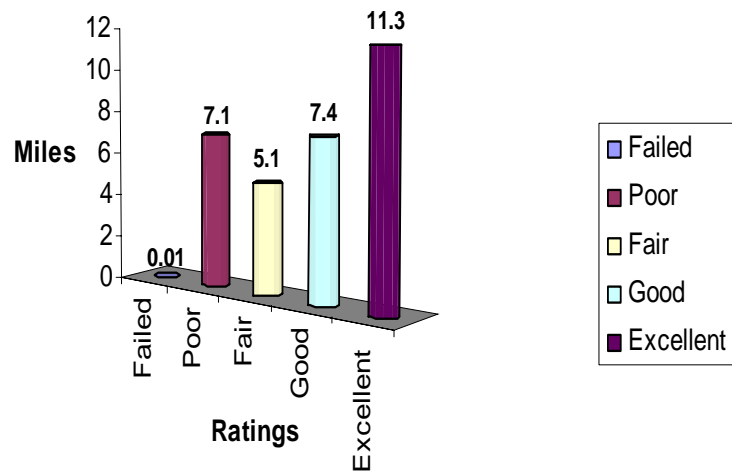
Street Condition Rating

<i>PCI Number</i>	<i>Rating</i>
<i>100</i>	Excellent
<i>85</i>	Very Good
<i>70</i>	Good
<i>55</i>	Fair
<i>40</i>	Poor
<i>25</i>	Very Poor
<i>10-0</i>	Failed

- Evaluation was primarily based on Pavement Condition Rating (PCI)
- PCI numerical and qualitative ratings are measures of pavement structural integrity & surface operational condition

Pavement Condition Evaluation

Street Rating Versus Miles

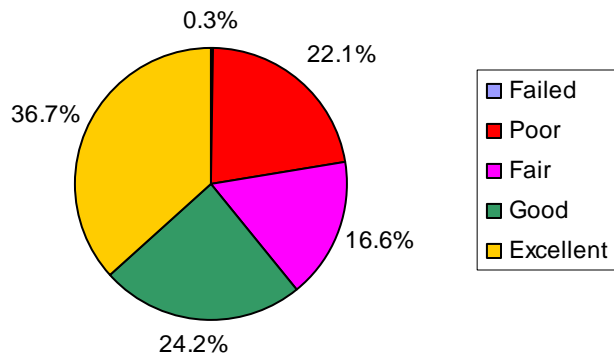


➤ 60.9% rated Excellent, Very Good, or Good condition (18.7 miles)

➤ 16.6% rated in Fair condition (5.1 miles)

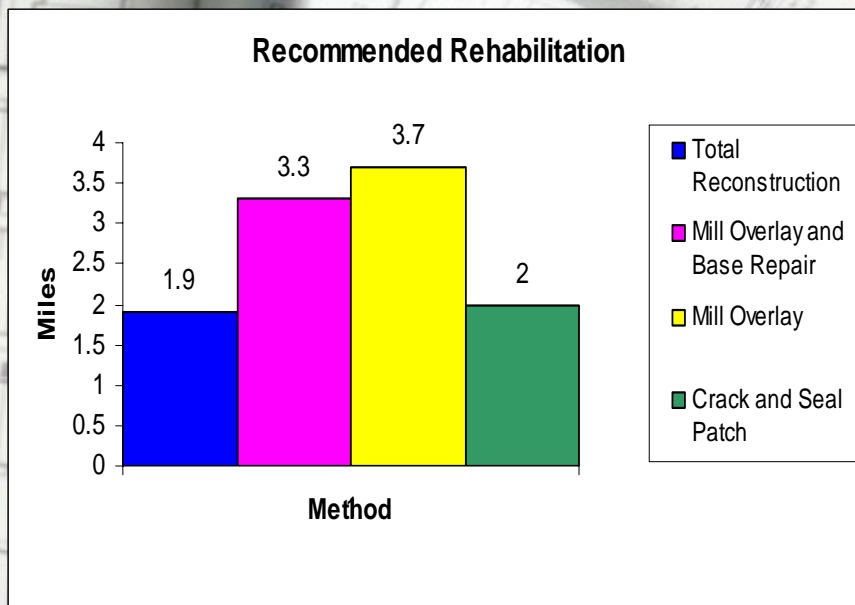
➤ 22.4% rated in Poor to Failed condition (7 miles)

Condition of Street Percentage



Repair Recommendations

For streets rated in Fair, Poor or Failed condition, the following rehabilitation methods were recommended:

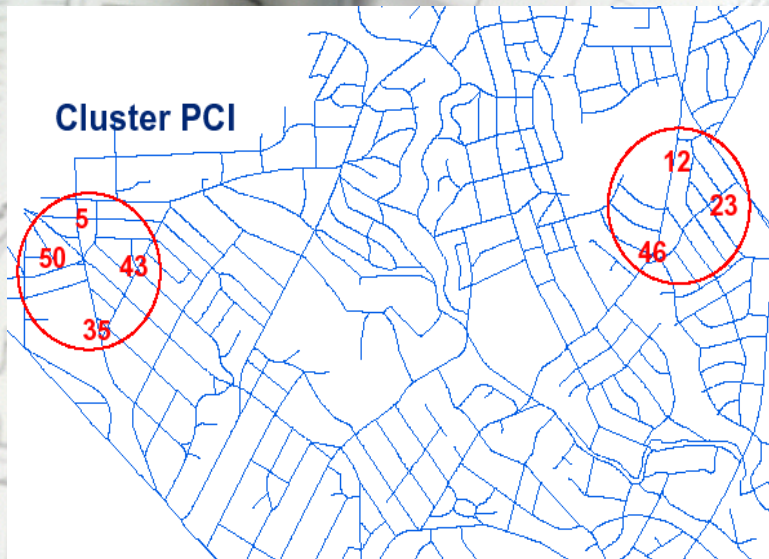


- 1) Re-const. 2 miles
 - 2) Resurfacing 7miles
 - 3) Seal /patch 2 miles
 - 4) No action 1.2 miles
- Total 12.1 miles
- Estimated Cost of 1 & 2 \$4,096,000

Street Restoration Program

Multi-year program was developed for street restoration based on the following criteria:

- 1) Street Study Ratings;
Ratings were verified and modified as pavement conditions deteriorate
- 2) Logistical considerations
Clustering of work to optimize efficiency, scheduling & reduce mobilization cost



Street Restoration Program



3) Public safety and life span considerations

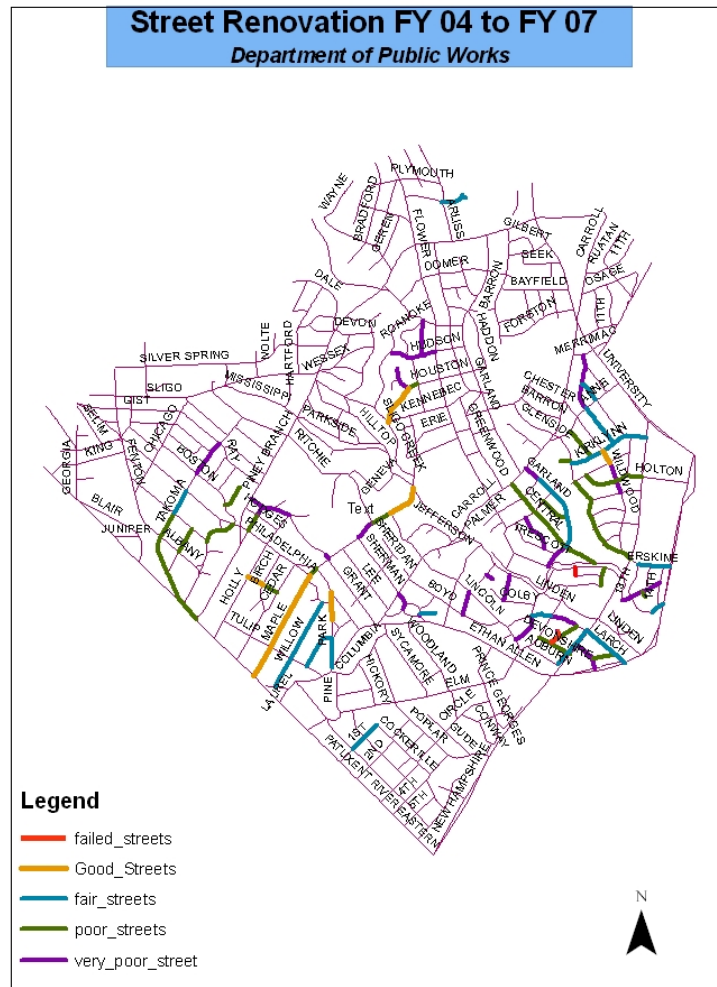
i.e. traffic calming, traffic volumes, and expected deterioration



4) Other work planned for the street

i.e. WSSC utility upgrades and previously identified CDBG projects

Work Done to Date



➤ 77 street segments were repaired amounting to 8.2 miles - 43,575 feet from July 2004 to present

➤ Actual Cost

\$2,841,584.30

➤ Street Study Cost Estimates

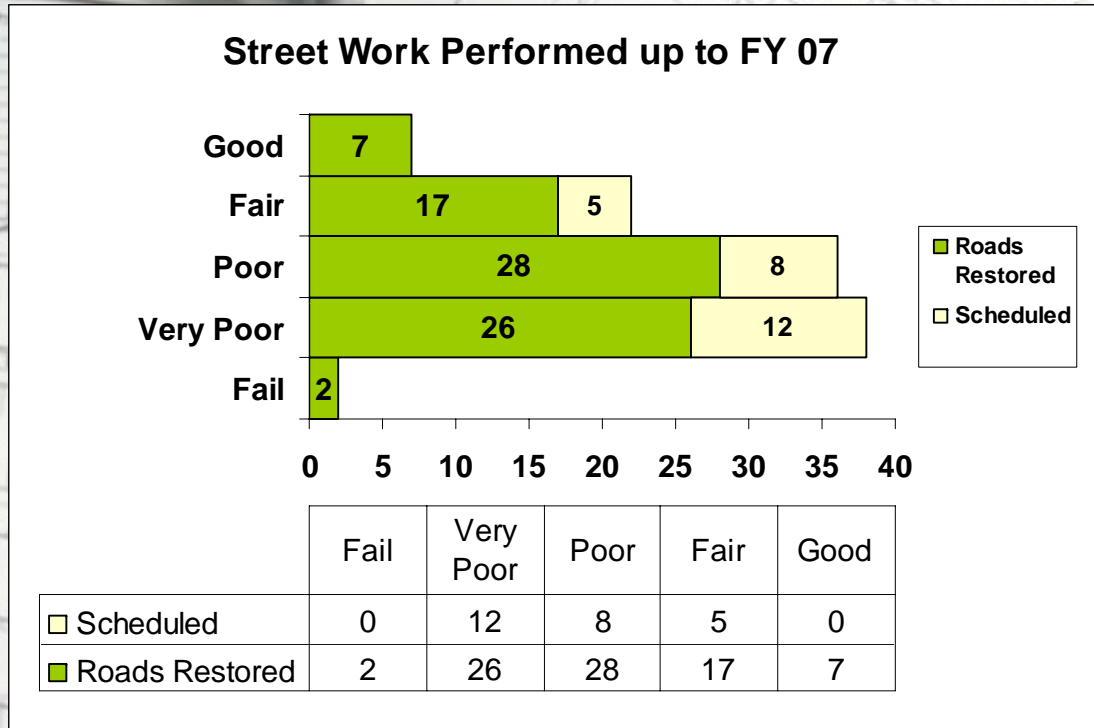
\$2,591,606.00

➤ Cost per Linear Foot

City Cost \$65.21

Study Estimate \$59.47

Completed and Remaining Work

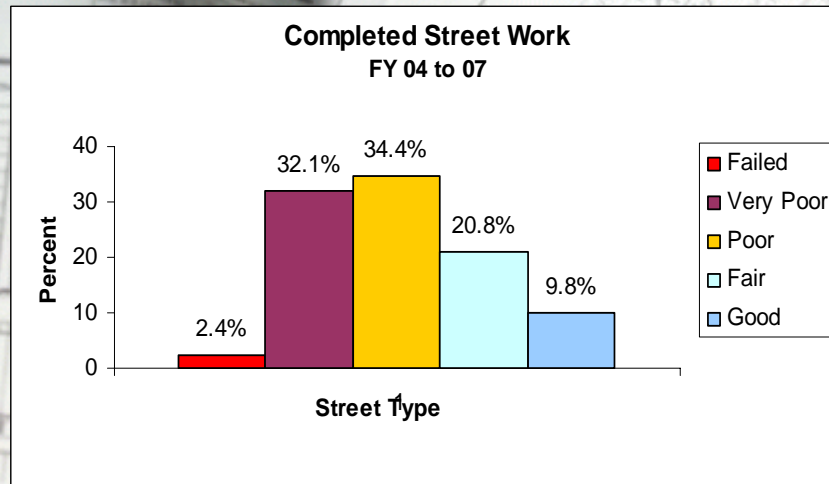


➤ All street sections rated as Failed were restored

➤ Street sections rated Very Poor, Poor, and Fair not yet restored are scheduled for FY 08 – FY11.

➤ Restoration of scheduled street sections were delayed primarily due to WSSC (pipe replacements) programs.

Completed and Remaining Work



Of all streets that were restored:


- 73 % were ranged in rating from failed to poor
- 21% were rated fair
- 9% of streets rated good were restored based on criteria previously described



Work

Street Rating:

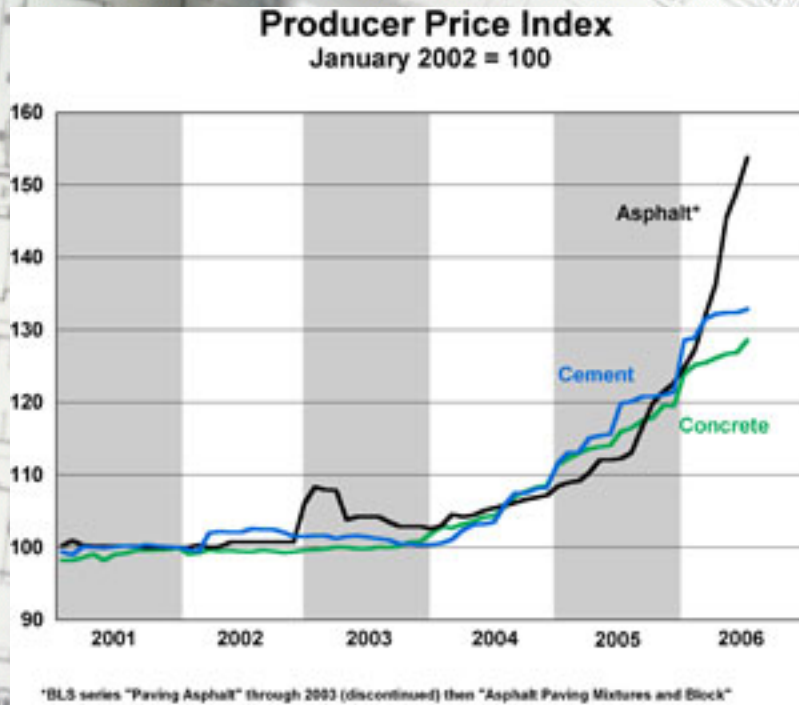
- a) Failed
- b) Very Poor
- c) Poor
- d) Fair
- e) Good

A diagram of a street cross-section. On the left, a 'WATER CREEK' is shown with a wavy line. To its right is a 'LTON' label. The diagram is oriented vertically, with the creek at the top and the road at the bottom.

- a) Failed
- b) Very Poor
- c) Poor
- d) Fair
- e) Good



Cost Impacts



http://www.cement.org/pavements/images/PPI_july06.jpg

- Contractor prices for resurfacing increased 15% from FY04 to FY07
- Cost of construction materials increases with fuel prices
- From 04 to 07, materials cost increase 20 to 50%
- WSSC work delays our schedule
- Expand scope of project to address traffic calming issues when possible

Future Restorations

- In FY 07, five street segments of 2,137 linear feet length are scheduled for resurfacing
- For FY 08, six street segments, 2,187 linear feet, are scheduled
- During FY 09 through FY 11 a total of 12 street sections of 5,843 linear feet are scheduled for restoration

Street Restorations Remaining in FY 07

➤ All work tentative based on funding and other considerations

Street Restoration FY- 07 Funded through CIP

		Budget	\$296,656		
Street Name	From	To	Study Est Cost	Est. Costs	Restoration Method
Elm Ave.	Larch Ave.	Ethan Allen Ave.	\$92,498	\$80,000	MOB
Maple Ave. (CDBG)	Philadelphia Ave.	Sherman Ave.	\$93,144	\$65,650	MOB
		TOTAL	\$185,642	\$145,650	

Planned Street Restorations FY 08

➤ All work tentative based on funding and other considerations

Proposed Street Work in FY 08

		Budget		\$147,752	
Street Name	From	Total	Study Est. Cost	Est. Cost	Restoration Method
Cleveland Ave.	Baltimore Ave.	End of Street	\$11,564	\$20,475	MOB
Elm Ave.	Larch Ave.	Heather Ave.	\$50,348	\$41,925	MOB
Linden Cir.	Elm Ave.	Cul-de-sac	\$10,341	\$11,310	MOB
Heather Ave.	Sligo Creek Pkwy.	End of Street	\$65,563	\$68,445	MOB
		Total	\$137,816	\$142,155	

Planned Street Restorations in FY 09

➤ All work tentative based on funding and other considerations

Proposed Street Work in FY 09						Restoration Method
Budget			\$158,055			
WSSC						
50/50	Davis Ave.	Flower Ave.	Garland Ave.	\$72,260	\$63,830	MOB
WSSC						
50/50	Darwin Ave.	Grant Ave	End of Street	\$47,223	\$22,230	TRC TO MOB
	Maple Ave.	Hilltop Rd.	Sligo Creek Pkwy.	\$19,527	\$14,950	MOB
WSSC						
	Westmoreland Ave.	Walnut/Elm Ave.	Carroll Ave.	\$60,602	\$60,515	MOB
			TOTAL	\$199,612	\$161,525	

Planned Street Restorations in FY 10

➤ All work tentative based on funding and other considerations

Proposed Street Work in FY 10						Restoration Method
Budget			\$168,358			
After WSSC	Albany Ave.	Baltimore Ave.	Buffalo Ave.	\$20,706	\$36,660	MO
After WSSC	Buffalo Ave.	Takoma Ave.	Albany Ave.	\$30,268	\$30,225	MOB
After WSSC	Jackson	Glenside Dr.	Wildwood Dr.	\$25,838	\$50,505	MO
After WSSC	Wildwood Dr.	Kirklynn Ave.	Anne St.	\$74,172	\$50,700	MOB
			TOTAL	\$150,984	\$168,090	

Planned Street Restorations in FY 11

➤ All work tentative based on funding and other considerations

Proposed Street Work in FY 11					Restoration Method	
Budget			\$175,560			
After WSSC	Chaney Dr.	Flower Ave.	Cul-de-sac	\$26,530	\$16,380	MOB
	Baltimore Ave.	Takoma Ave.	New York Ave.	\$2,986	\$85,410	PS to MO
After WSSC	Grant Ave.	Dead End	Holly Ave.	\$135,256	\$60,000	MOB
	Palmer Lane	Flower Ave.	Dead End	Not rated	\$20,000	MOB
			TOTAL	\$164,773	\$181,790	